In the Specification:

Please replace the paragraph beginning on page 1, line 4, with the following amended paragraph:

--The invention relates to an antenna system for a vehicle for monitoring various vehicle internal diagnostic functions and for transmitting/receiving to and from remote transmitting/receiving stations external to the vehicle. More particularly, the antenna system relates to exterior ~~rear-view~~rear view mirror mounted ~~antennae~~ antennas on the vehicle which can be directionally activated to detect or transmit selected signals.--

Please replace the paragraph beginning on page 2, line 16, with the following amended paragraph:

--Referring now to the drawings and to FIG. 1 in particular, a vehicle 10 is shown having a generally well-known configuration: four ground-engaging wheels 12 with a spare tire 14 located in a trunk portion 16 of the vehicle 10. The vehicle 10 is also provided with conventional windshields, one forward windshield 18 and one rearward windshield 20. The forward windshield 18 is provided with a conventional rear view mirror 22. A driver-side external rear view mirror 24 and a passenger-side rear view mirror are located adjacent the forward windshield 18, typically positioned on corresponding front doors (not shown) of the vehicle 10. Each of the external mirrors 24 and 26 ~~are~~ is preferably provided with an antenna system. An example of a prior art antenna system in which a radio frequency antenna is mounted within an exterior mirror for a vehicle is shown in commonly-assigned U.S. Patent No. 5,504,478 to Knapp, issued April 2, 1996 and is incorporated herein by reference.--

Please replace the paragraph beginning on page 6, line 3, with the following amended paragraph:

--There are several applications which can employ the antenna system described herein to advantage. For example, multiple receiving ~~antennae~~ antennas can be used to discriminate the individual locations of multiple transmitters, e.g., tire pressure sensor signaling devices. Multiple receiving ~~antennae~~ antennas can be used to expand the reception range of a transmitted

signal, e.g., remote keyless entry (RKE) signals. Multiple transmitting ~~antennae~~ antennas can be used to expand transmission range and coverage, e.g., transmitting an amplified garage door opener signal. A pre-selected transmitting antenna can be used to control transmission directionality, e.g., to transmit to a receiver such as a parking ramp gate, radio-controlled parking meter or an automated toll collection booth. Other vehicular applications for which this antenna array could be utilized include, but are not limited to, cellular telephone signal reception, roadway navigation, location and information, traffic control, safety, security, parking, and vehicular identification and statistical information, e.g., traffic counting applications. These and other uses will be described below in greater detail after the structural components and functions are identified with reference to the drawings.--

Please replace the paragraph beginning on page 9, line 14, with the following amended paragraph:

--FIG. 4 also shows an antenna system 40 according to the invention on each external mirror 24 and 26 comprising a forwardly-directed antenna 44 and a rearwardly-directed antenna 46. Each of the ~~antennae~~ antennas 44 and 46 can comprise a dielectric or metallic coating on glass for the mirrors 24 and 26 (such as in an electrochromic mirror), a wire antenna provided within the mirror housing, or any other ~~well-known~~ well-known conventional monopole, dipole, helical, patch or other ~~antennae~~ antennas known in the art. Many variations in the types of ~~antennae~~ antennas 44 and 46 are contemplated without departing from the scope of this invention.--

Please replace the paragraph beginning on page 9, line 22, with the following amended paragraph:

--Each of the ~~antennae~~ antennas 44 and 46 is adapted to detect a signal from a remote source within a particular localized area of the particular antenna 44, 46. FIG. 5 shows example signal detection fields 48 and 50 for the ~~antennae~~ antennas 44 and 46, respectively. It will be understood that, although the signal detection fields 48 and 50 are shown only for the ~~antennae~~ antennas 44 and 46 of the antenna system 40 of the driver-side mirror 24, the fields 48 and 50 are

similarly oriented for the passenger-side mirror 26. FIG. 5 also shows examples of typical forward and rearward transmission fields 52 and 54, respectively, for the transmitting antenna 42 in each of the tire pressure sensors 28 on the wheels 12 and the spare tire 14.--

Please replace the paragraph beginning on page 10, line 12, with the following amended paragraph:

--It is an important feature of the invention that the ~~antennae~~ antennas 44 and 46 of the antenna system 40 be interconnected to a matching network (as is known in the art) which maximizes the received signal strength so that a signal from a particular antenna can be detected and processed most accurately. Along these lines, FIGS. 6 and 7 show the forwardly- and rearwardly-directed ~~antennae~~ antennas 44 and 46, respectively, being actuated wherein one of the ~~antennae~~ antennas 44 and 46 is actuated while the other is not. A detection of the tire pressure in a particular wheel 12 can thereby be more accurately obtained.--

Please replace the paragraph beginning on page 11, line 17, with the following amended paragraph:

--FIG. 9 is a schematic view of the circuit of FIG. 8 modified so that the control circuit 60, receiver/detector circuit 62 and the indicator 64 can be selectively interconnected to each of the ~~antennae~~ antennas 44 and 46 of the antenna systems 40 provided on the driver-side and passenger-side mirrors 24 and 26 by an antenna matching/switching network 66. It will be understood that elements common to both FIG. 8 and FIG. 9 are referred to with common reference numerals.--

Please replace the paragraph beginning on page 11, line 23, with the following amended paragraph:

--As shown in FIG. 9, the matching/switching network 66 is interconnected to the driver-side ~~antennae~~ antennas 44 and 46 by connections 68 and 70 and to the passenger-side ~~antennae~~ antennas 44 and 46 by connections 72 and 74, respectively. Additionally, the control circuit 60 is interconnected to the network 66 by a feedback loop 76. The antenna matching/switching

network 66 functions to accept the signal from the ~~antennae~~ antennas 44 and 46 and to send the appropriate signal to the receiver and detector circuit 62. The feedback loop 76 from the control circuit 60 to the matching/switching network 66 enables the control circuit 60 to specify which of the ~~antennae~~ antennas to actively accept a signal from, preferably when a strong signal from one of the ~~antennae~~ antennas 44 and 46 is detected.--

Please replace the paragraph beginning on page 12, line 3, with the following amended paragraph:

--It will be understood that it has been found that the matching network 66 provides additional accuracy in the signal processing of the system 40 but is not an essential component depending upon the type of ~~antennae~~ antennas 44 and 46 employed as well as other factors such as the length and type of connecting wiring, etc.--

Please replace the paragraph beginning on page 12, line 7, with the following amended paragraph:

--FIG. 10 shows the control circuit of FIG. 9 which has been expanded to show internal components of the matching/switching network, shown in box form by reference numeral 66, and internal components of the receiver and detector circuit 62 and control circuit 60 also outlined by a box denoted by reference ~~numeral~~ numerals 60, 62. The matching/switching network 66 includes a pair of matching networks 78 and 80 extending between each of the ~~antennae~~ antennas 44 and 46 and an antenna switching network 82. Each of the matching networks 78 and 80 ~~are~~ is interconnected by a connection 84. The matching networks 78 are interconnected to a corresponding connection 68, 70, 72 and 74 of the ~~antennae~~ antennas 44 and 46 of the driver-side mirror 24 and the ~~antennae~~ antennas 44 and 46 of the antenna system 40 of the passenger-side mirror 26, respectively. Each of the matching networks 80 ~~are~~ is interconnected to the antenna switching network 82 by corresponding connections 86, 88, 90 and 92, respectively.--

Please replace the paragraph beginning on page 12, line 19, with the following amended paragraph:

--The matching networks 78 and 80 are generally provided to ensure that the signal generated by the ~~antennae~~ antennas 44 and 46 are matched to that required by the antenna switching network 82. Namely, the characteristics of the signals generated by the ~~antennae~~ antennas, i.e., impedance, capacitance and inductance, are matched by the matching networks 78 and 80 and provided to the antenna switching network 82 through the connections 86-92. If the signals between the ~~antennae~~ antennas 44 and 46 and the antenna switching network 82 do not require matching, the matching networks 78 and 80 and their corresponding interconnection 84 are not required. Preferably, at least one of the matching networks 78 and 80 match the antenna characteristics with the input of the receiver and detector circuit 62, which will be further described in great detail below.--

Please replace the paragraph beginning on page 13, line 21, with the following amended paragraphs:

--The circuit of FIG. 10 is also able to discriminate between the several antenna signals received through the antenna matching/switching network 66. To further this function, the detector 102 is provided with a feedback connection 108 which splits at node 110 and provides inputs into the receiver 96 through connection 112 and to a peak detector 114 through a connection 116. The peak detector 114 has an output connection 118 which is interconnected to the controller 106 through an optional analog-to-digital converter 120 to the extent that the output from the peak detector 114 requires conversion to a digital signal by the A/D converter 120.

It will be understood that a digital system can be implemented without departing from the teachings of this specification. For example, the A/D converter 120 could be removed from its location in FIG. 10 and a D/A converter (not shown) could be located on the feedback loop 76 to the extent analog signals are received by the receiver 96. In any event, the schematic shown in FIG. 10 is by example only and a variety of circuits for accomplishing the functions of the components thereof can be employed without departing from the scope of this invention.--

Please replace the paragraph beginning on page 14, line 25, with the following amended paragraph:

--The method of operation of the antenna system for detecting a signal received by the ~~antennae~~ antennas 44 and 46 of the antenna system 40 provided on each of the driver-side and passenger-side mirrors 24 and 26 will now be described--.

Please replace the paragraph beginning on page 14, line 28, with the following amended paragraph:

--Typically, tire pressure sensors 28 transmit frames of data several times over predetermined time intervals. However, to conserve battery power, these data frames are often transmitted at sporadic intervals depending upon various factors, such as the speed of the rotation of the wheel and delays between changes of speed, etc. The signals from the ~~antennae~~ antennas 44, 46 on each of the mirrors 24 and 26 are continually sent through connections 68-74 into the antenna matching/switching network 66. The signals are matched by any matching networks 78 and 80 present within the matching/switching network 86 and sent to the antenna switching network 82 through connections 86-92, respectively.--

Please replace the paragraph beginning on page 15, line 26, with the following amended paragraph:

--Normally, the controller 106 would sequentially switch the source antenna 44, 46 (i.e., "scan" the available ~~antennae~~ antennas), until an information signal is received through connection 104 by the controller 106. The controller 106 then records the peak signal value received through the converter 120 from each of the ~~antennae~~ antennas 44, 46 - resetting the peak detector 114 each time another antenna 44, 46 is switched into the circuit. The controller 106 "locks" on to the antenna 44, 46 from which the peak signal was received (i.e., produced the greatest reception strength signal through converter 120 detected by the controller 106) and records the information signal (through connection 104) from that antenna 44, 46. When a frame of data has thereby been collected, system 40 updates the particular portion of the indicator 64 associated with that particular antenna 44, 46 used to collect the data frame. The controller 106

can also additionally use partial or complete data frames to verify the validity of the information signal, e.g., to protect against false indicators from nearly vehicles. The controller 106 then returns to the scan mode.--

Please replace the paragraph beginning on page 16, line 10, with the following amended paragraph:

--Generally, the controller 106 compares the information signal provided by the detector 102 through connection 104 to the peak signal sent by the peak detector 114 through the connection 118 and the optional A/D converter 120. The controller then saves the detected information signal 104 in memory and scans the signals from the remaining ~~antennae~~ antennas 44 and 46 and receives a signal through connection 98 from the antenna switching network 82 in similar manner.--

Please replace the paragraph beginning on page 16, line 16, with the following amended paragraph:

--If the signal sent by the antenna switching network is not equal to the peak signal sent by the peak detector 114, the controller cycles through the signals received by the receiver/detector circuit 62 until the signal sent by the detector 102 through connection 104 to the controller 106 equals the peak signal sent through connection 108 and optional A/D converter 120 by the peak detector 114. The strongest signal from the multiple ~~antennae~~ antennas has thereby been identified.--

Please replace the paragraph beginning on page 17, line 3, with the following amended paragraph:

--This type of sequential scanning approach to processing signals received from mirrors located on vehicle ~~antennae~~ antennas is far more beneficial than those systems known in the prior art. For example, because the antenna switching network 82 is instructed to detect the strongest signal received from the four ~~antennae~~antennas, the antenna system 40 works much more on a "directional" basis rather than a "sensor specific" basis. Put more simply, the system of the

present invention does not require each tire pressure sensor to transmit a specific identification code. In actuality, the particular identification number of a tire pressure sensor is irrelevant (although an identification code does help to discriminate false signals from tires on vehicles nearby to the vehicle at issue). Rather, the tire pressure sensing system senses the signal from each antenna, directionally determines if a signal is being detected by a particular antenna and activates that antenna and deactivates the other ~~antennae~~ antennas of the system so that the tire pressure sensing system directionally adjusts based upon the strength of a signal received by a particular antenna.